Amendment to the Claims:

1. (Cancelled)

2. (Currently Amended) A method ~~as claimed in claim 1,~~ of reconstructing an MR image from MR signals that are acquired in parallel by a plurality of receiving coils with incomplete sampling of the spatial frequency space, the reconstructed MR image being calculated iteratively as the solution of a system of linear equations, wherein the iteration process begins with a starting image which approximates to the MR image to be reconstructed, in such a way that undersampling artifacts are suppressed in the intermediate solutions of the system of linear equations that are obtained during the course of the iteration process, wherein the starting image is generated by reconstructing restricted sub-regions, of the starting image from those MR signals that are acquired by receiving coils that have high respective sensitivities in these sub-regions.

3. (Currently Amended) [[A]] The method as claimed in claim 2, wherein in those sub-regions of the starting image that cannot be reconstructed directly from MR signals acquired by individual receiving coils owing to the degree of undersampling, the missing image information is synthesized from the MR signals in their entirety.

4. (Currently Amended) [[A]] The method as claimed in claim [[1]] 5, wherein the starting image ~~is reconstructed from the MR signals at~~ has a resolution that is reduced in comparison with the ~~definitive~~ current MR image currently being reconstructed.

5. (Currently Amended) [[A]] The method ~~as claimed in claim 1,~~ of reconstructing a new MR image:

acquiring MR signals that are acquired in parallel by a plurality of receiving coils with incomplete sampling of the spatial frequency space;

reconstructing a current MR image by iteratively calculating a solution of a system of linear equations, the iteration process beginning with a starting image, in such a way that undersampling artifacts are suppressed in the intermediate solutions of the system of linear equations that are obtained during the course of the iteration process, ~~wherein what is used as~~ the starting image ~~is an~~ being a prior MR image that ~~has already been~~ was reconstructed prior to and ~~that~~ is similar to the current MR image ~~that has yet to be~~ currently being reconstructed.

6. (Currently Amended) [[A]] The method as claimed in claim 5, wherein [[in]] the reconstruction [[of]] includes reconstructing a plurality of MR slice images, the starting image [[is]] being generated from a previously reconstructed at least one of the MR slice images of ~~that has already been reconstructed and that has~~ an image plane adjacent to the current MR slice image ~~that has yet to~~ currently being reconstructed.

7. (Currently Amended) [[A]] The method as claimed in claim 5, wherein ~~in reconstructing~~ a series of prior MR images are reconstructed spread over a plurality of times, ~~what is used as a~~ the starting image [[is]] being one of the prior [[an]] MR images that ~~has already been~~ was reconstructed ~~and that was acquired~~ at a time prior to the current MR image ~~that has yet to~~ currently being reconstructed.

8. (Currently Amended) [[A]] The method as claimed in claim [[1]] 5, wherein in the acquisition of the MR signals , the sampling of the spatial frequency space takes place ~~radially or spirally or~~ in ~~any other~~ a non-Cartesian fashion.

9. (Currently Amended) An MR apparatus having a main field coil for generating a homogeneous static magnetic field in an examination volume, a plurality of gradient coils for generating magnetic field gradients in the examination volume, at least one emitting coil for generating high-frequency fields in the examination volume, a plurality of receiving coils for the parallel acquisition of MR signals from the examination volume, and a central control unit for operating the gradient coils and the emitting coil, plus a reconstruction and display unit for

processing and showing the MR signals, wherein the reconstruction and display unit has a programmed control means that operates by the method claimed in claim [[1]] 2.

10. (Currently Amended) A computer medium carrying a computer program ~~for~~ which when implemented in a reconstruction processor of an MR apparatus ~~as claimed in claim 9, wherein a~~ controls the MR apparatus to perform the method as claimed in claim [[1]] 2 ~~is implemented on the reconstruction and display unit of the MR apparatus by the computer program~~.

11. (New) The method as claimed in claim 5, wherein the MR signals are acquired by sampling radially.

12. (New) The method as claimed in claim 6, wherein the starting slice image and the current MR slice image are generated in a common imaging session.

13. (New) The method as claimed in claim 7, wherein the starting slice image and the current MR slice image are generated in different, temporally displaced imaging sessions.

14. (New) An MR apparatus having a main field coil for generating a homogeneous static magnetic field in an examination volume, a plurality of gradient coils for generating magnetic field gradients in the examination volume, at least one emitting coil for generating high-frequency fields in the examination volume, a plurality of receiving coils for the parallel acquisition of MR signals from the examination volume, and a central control unit for operating the gradient coils and the emitting coil, plus a reconstruction and display unit for processing and showing the MR signals, the reconstruction and display unit including at least one processor programmed to perform the method of claim 5.

15. (New) A computer medium carrying a computer program which when implemented in a reconstruction processor of an MR apparatus controls the MR apparatus to perform the method as claimed in claim 5.